

Recommended Sustainability Faculty Positions

As part of Portland State's strategic planning activities, "sustainability" was selected as a programmatic focus for investment. In January 2008, the Office of Academic Affairs convened the ad hoc Sustainability Advisory Group to assess the University's existing strengths in sustainability and identify opportunities where additional faculty positions could have the greatest benefit. Following several meetings with the Advisory Group, the Provost approved the recommendation to recruit a director for the Center for Sustainable Processes and Practices. Once on board, the new director will lead the recruitment of up to seven additional faculty positions in selected focal areas over the next two years. Initial recommendations for those positions, as discussed in January 2008, are listed below.

Potential Positions (1-10): numbers do not reflect priority ranking

Position 1: Landscape Level Systems Specialist (*Rural-urban interface*)

Scholarly interests that would complement/strengthen PSU programs: patterns and processes of urban systems as they relate to the integrity of human and ecological conditions, landscape level effects in urban and rural managed landscapes, food systems, "land use planning in 2020" (making farms and forests and green spaces work); ecosystem impact assessment and management; transportation systems (esp. relationship between transportation systems, land use/development, and economic/demographic systems), water across the landscape; extra-urban cultural linkages; could be configured as an ecologist with a policy/environmental management bent.

What this position leverages at PSU: ecosystem science and management, land use and planning expertise, invasive species management, water resources management, food systems interests, environmental and natural resource policy strengths, urban ecology

What this position leverages/ how contributes in the community/region: urban planning, ecosystem management, land use leadership, green spaces, food system leadership, water resources management

Position 2: Human Health and the Environment

Scholarly interests that would complement/strengthen PSU programs:

Environmental health, outdoor photochemical modeling, confluence issues, (i.e. bio accumulating toxins, and asymmetric distribution of effects, i.e. air pollution in the Columbia River Gorge). Impacts of climate change on health, land use and health (e.g. obesity issues), social/equity issues related to green space, environmental justice.

What this position leverages at PSU: community health, public health, urban ecology, ecosystem management, urban planning, urban heat island research, climate issues, social sustainability

What this position leverages/ how contributes in the community/region: environmental justice, environmental health, quality of life, regional planning, climate change/policies

Position 3: Energy Economist (climate change as priority)

Scholarly interests that would complement/strengthen PSU programs:

energy economics, economics of climate change, renewable/clean energy systems, costs of environmental impacts related to energy alternatives, economics of transportation (as relates to energy/fuels), human behavior and energy issues; possibly economic impacts of public transportation investments (streetcar, rail, bus)

What this position leverages/supports: transportation, energy economics certificate (currently not offered due to lack of tenure track faculty) – could be offered across departments/degree programs, could link energy expertise across campus, natural resource policy strengths

What this position leverages/ how contributes in the community/region: leadership/interest in innovative energy policies

Position 4: Sustainability Policy with Natural Resource/Water Focus

Scholarly interests that would complement/strengthen PSU programs: policy and administrative aspects of sustainability, water resources, interest in complex jurisdictional water issues (e.g., Columbia and Klamath basins) and process oriented issues; e.g., human impacts on watersheds, approaches to addressing over-constrained water resources, ecological and social adaptation to changing hydrological patterns, ecosystem services, environmental governance, urban/rural interface, coastal ecosystem management, invasive species management

What this position leverages/supports at PSU: technical strengths in water and ecosystem management issues, leadership in environmental/NR policy and governance, collaborative decision making, invasive species management,

What this position leverages/ how contributes in the community/region: leadership/interest in innovative sustainability policies, leadership in ecosystem management, invasive species management, water quality/quantity concerns, conflict in regions around water, ecosystem service interests

Position 5: Technical Energy Expert (Efficiency, Renewables)

Scholarly interests that would complement/strengthen PSU programs: energy efficiency and/or renewable energy (*specific focus to complement other hires underway in MCECS*)

What this position leverages at PSU: while there is energy expertise across campus, need more technical expertise in both of these areas to fully realize research opportunities (e.g. MCECS has underutilized photovoltaics testing lab, opportunity to work on wind power technology but lack expertise); need for more expertise in energy as it relates to transportation

What this position leverages/ how contributes in the community/region: BEST, growing leadership in energy efficiency and renewables.

Position 6: Environmental/Sustainability Finance

Scholarly interests that would complement/strengthen PSU programs: Expertise in environmental finance/triple bottom line financing strategies, ecological economics, ecosystem services valuation methods, ecosystem service markets; possibly interest in sustainable business models (public-private interface), micro enterprise as it relates to social capital development

What this position leverages at PSU: ecosystem science and management, governance and policy leadership, interest in innovative public finance models, environmental governance, intergenerational finance interests

What this position leverages/ how contributes in the community/region: leadership in incentives/policies to support sustainable development, ecosystem marketplace development,

Position 7: Triple Bottom Line Impact Assessment, Decision Support Systems, “Pathway” Analysis (*integrated life cycle assessment, carbon footprint analysis/ strategies*)

Scholarly interests that would complement/strengthen PSU programs: Sustainability metrics (social, environmental, economic), triple bottom line pathway analysis (economic, social and environmental aspects of life cycle assessment, industrial ecology, etc), carbon footprint assessment, health impact assessment, spatial analysis, evaluation of program and policy impacts. If had strong economics bent, could address ecological and social (i.e. non-market) valuation methods.

What this position leverages at PSU: interest/need for more “triple bottom line” impact assessment expertise that complements transportation evaluation (opportunity to support evaluation of public transportation investments and impacts of alternative fuel adoption), interest in climate impacts/strategies; assessment of energy and emissions outcomes of various development paths); health evaluation, social/economic/environmental evaluation. Strong interest in non-market valuation.

What this position leverages/how contributes in the community/region: demand for assistance in carbon footprint/carbon strategy development, life cycle assessment, stronger evaluation techniques that address all spheres of sustainability (green building, transportation, policy alternatives etc), triple bottom line impact assessment

Position 8: Education/Public Awareness and Engagement/Behavior Change

Scholarly interests that would complement/strengthen PSU programs: mechanisms to enhance public awareness, engagement, and behavior change related to sustainability, non-formal and free-choice learning, moral and justice issues concerning environmental management, consumer choice, lifestyle, and behavior change, social marketing strategies, evaluation techniques relevant to awareness and engagement

What this position leverages at PSU: engagement as central to PSU’s identity – opportunity to build evaluative and implementation in this area, leadership in sustainability education across campus, educational programs focused on sustainability, multiple programs focused on behavioral change

What this position leverages/how contributes in the community/region: investment in civil society, interest in fostering behavior change toward sustainability through integrated strategies (policy, education, incentives, etc)

Position 9: “People and the Built Environment” (integrated grasp of environmental, social and economic aspects/impacts of green development of the built environment)

Scholarly interests that would complement/strengthen PSU programs:

Productivity effects of green building, health effects of green development, measurement and assessment of interrelationships between buildings/development patterns and people/social systems, evaluation expertise

What this position leverages at PSU: green building expertise growing (ARCH, MCECS), BEST, social sustainability, impact assessment, education, behavioral change

What this position leverages/ how contributes in the community/region: leadership in green building, need for more research on these aspects of green development, lack of R&D capacity in private sector, BEST

Position 10: Green Development of Infrastructure and the Built Environment – practice and policy

Scholarly interests that would complement/strengthen PSU programs: approaches to green infrastructure (technical and policy level), transportation infrastructure (modes, materials and propulsion), assessment of ecological impacts downstream from green development, technologies and strategies for low impact development, building systems (energy, water, air quality, etc), controls, information systems, material science, ecoroofs, evaluation expertise.

What this position leverages at PSU: Positions in MCECS and ARCH, BEST. USP, ongoing research in MCECS and ESR on low impact development, and on broader ecosystem impacts (water resources, heat island effect, health effects) of green infrastructure

What this position leverages/ how contributes in the community/region: planning, leadership in green development, lack of R&D resources in private sector, BEST, environmental planning and management of green buildings and low impact development patterns

**For a matrix of the focal/cross-cutting areas and positions,
please refer to the following page.**

Positions listed <u>without</u> priority ranking	A: Coupling of Human and Natural Systems	B: Sustainable Urban Communities	C: Mechanisms for Change	D. Measurement, Valuation, Evaluation
1- Landscape Systems	X	X		
2 – Health and Environment	X	X		X
3 – Energy Economics	X	X	X	X
4 – Sustainability Policy/ Water	X	X	X	X
5 – Energy Efficiency/Renewables	X	X		
6 – Environmental Finance	X	X	X	X
7 – Triple Bottom Line Impact Assessment	X	X	X	X
8 – Education and Public Awareness	X	X	X	X
9 - People and the Built Environment	X	X	X	X
10 – Green Infrastructure	X	X		X